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AB0243

### THE SHORT DISEASE DURATION IS ASSOCIATED WITH WORSE MOOD DISORDER IN PATIENTS WITH RHEUMATOID ARTHRITIS

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**Background:** Rheumatoid arthritis (RA) is commonly associated with mood disorders, especially depression and anxiety. But the status of mood disorders in RA patients with different courses is unknown.

**Objectives:** The aims of this study were to investigate the frequencies of depression and anxiety in patients with early RA and non-early RA, and further to identify the risk factors for mood disorders.

**Methods:** Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) were applied to all enrolled RA patients to assess their corresponding status of anxiety and depression. Besides clinical assessment, power Doppler and grey-scale ultrasound of 22 joints were also performed. The status of mood disorder was studied in early RA patients compared to non-early RA patients. Multivariate regression was used to identify the risk factor for mood disorders.

**Results:** 201 RA patients were enrolled, with 76 early RA (disease duration  $\leq$  2 years) and 125 non-early RA (disease duration  $>$  2 years) patients. Mood disorder (depression and/or anxiety) was found in 20.9% (42/201) patients. Depression was more often observed in early RA patients than non-early RA patients (26.3% vs. 14.4%,  $P=0.036$ ). The similar trend for anxiety was observed also in early RA patients compared to non-early RA patients, although the difference was insignificant (13.2% vs. 5.6%,  $P=0.062$ ). Multivariate logistic regression analysis showed that disease duration (OR 0.991 [95% CI 0.985-0.998]), rheumatoid factor concentration (OR 2.697 [95% CI 1.165-6.241]), Health Assessment Questionnaire Disability Index (HAQ-DI) (OR 1.045 [95% CI 1.001-1.091]) and grey-scale synovitis score (GS score) (OR 1.092 [95% CI 1.032-1.156]) were independent risk factors for predicting depression in RA. Disease duration (OR 0.983 [95% CI 0.970-0.997]), HAQ-DI (OR 1.069 [95% CI 1.002-1.141]) and GS score (OR 1.073 [95% CI 1.005-1.141]) were independent risk factors for predicting anxiety in RA patients.

**Conclusion:** Mood disorders were almost doubled in frequency in early RA patients than non-early RA patients. RA Patients with short disease duration, high HAQ-DI and high GS score were more likely to be in depression and anxiety. More attention is needed to the psychological status of RA patients, especially those at an early stage, with poor physical function and severe synovitis.

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AB0244

### BODY MASS INDEX AND BODY COMPOSITIONS CORRELATES WITH CAROTID INTIMA MEDIA THICKNESS IN RHEUMATOID ARTHRITIS

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**Background:** Risk of rheumatoid arthritis (RA) had been reported in overweight obese compared with normal weight people. More, obesity is associated with high prevalence of cardiovascular disease (CVD) risk factors in RA. No previous publications have examined the detailed body composition parameters among RA, or its relation to CVD in RA.

**Objectives:** This study looked at the body composition and the body mass index and correlated it with the subclinical cardiovascular disease as manifested by carotid intima media thickness (cIMT).

**Methods:** During 2019, a cross-sectional study was carried out to recruit cases that met the 2010 American College of Rheumatology/EULAR criteria for diagnosis of RA. All the patients were free of cardiovascular and/or cerebrovascular disease. Patients with clinical diagnosis of hypertension, diabetes, renal disease,

dyslipidemia, thyroid disorder and pregnant female were excluded. None of the participants is smoker or had history of smoking.

cIMT ultrasound (US) measures were obtained using a real-time US scanner equipped with a 7.5 MHz linear probe by a single sonographer. Patients underwent a detailed body composition analysis within the same week of the cIMT measurement. The body composition analysis involved assessing the level of total body water, protein, minerals, body fat mass, intra- and extracellular water, basal metabolic rate, waist hip ratio, visceral fat level, obesity degree, bone mineral content, body cell mass, arm and arm muscle circumference, detailed muscle fat analysis, obesity analysis, segmental lean analysis, weight control parameters, and segmental fat analysis.

**Results:** During 2019, 35 female RA patients were recruited that met the inclusion criteria. The mean (SD) of the age was 52 (10) with a minimum of 20 and maximum of 72 years old. The mean (SD) of cIMT was 0.59 (0.098) mm with a minimum of 0.38 and maximum of 0.87. The mean (SD) of the BMI was 30.7 (7.0) with a minimum of 20 and maximum of 56.9 Kg/m<sup>2</sup>. Mean systolic blood pressure was 126 (19) with a minimum of 91 and maximum of 140 mmHg. Also, the mean diastolic blood pressure was mmHg 74 (11) with a minimum of 49 and maximum of 96.

The correlation of cIMT with the parameters of the body composition in a linear regression analysis showed a positive linear relationship between cIMT and each of the Body fat mass (kg):  $P=0.045$ , CI 0.000-0.004, BMI ( $p=0.029$ , CI: 0.001, 0.009), the target weight ( $p=0.040$ , CI: 0.000-0.001), extracellular water ( $P=0.033$ , CI: 0.002, 0.034) and bone mineral content ( $p=0.031$ , CI: 0.009, 0.192).

The Multiple linear regression analysis showed persistence of the relationship between the cIMT and the age of the participants ( $p=0.049$ , CI:0.001-0.007) and the BMI ( $p=0.031$ , CI: 0.002-0.032), with  $R^2$  of the model was 0.38.

**Conclusion:** To the best of our knowledge, this is the first paper to examine the detailed body composition parameters among RA and found a good correlation with subclinical cardiovascular disease as manifested by cIMT. More research with larger study population is needed to look at the association between body mass index and CVD risk factor in RA.

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AB0245

### RHEUMATOID ARTHRITIS DISEASE ACTIVITY AND VITAMIN D LEVELS IN A COLOMBIAN COHORT

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**Background:** There seems to be a relationship between 25-hydroxyvitamin D [25(OH)D] level and rheumatoid arthritis (RA)(1). It has been proposed that susceptibility for RA exists in selected patients with low 25(OH) with conflicting results (2,3) Regarding disease activity, most of the evidence suggests an inverse relationship of disease activity with 25(OH)D levels(4). To our knowledge, there is only a small study that suggests low 25(oh) D levels as a predictor of disease activity (5) in our region

**Objectives:** We aimed to evaluate the possible association of low 25(OH) D levels and disease activity in a large cohort of patients with Rheumatoid Arthritis in Colombia

**Methods:** We evaluated the clinical records of 3576 patients with RA that fulfilled the 2010 EULAR Classification Criteria for Rheumatoid Arthritis and that were managed in our autoimmunity center between 2014 and 2017. Registries that contained both the measurement of 25(OH)D levels and DAS28 VSG with no more than 6 months apart and that also had at least a mean 12-month follow-up were included. We classified 25(OH) D insufficiency as levels  $\leq$  20ng/ml. We evaluated differences in achieving disease control depending on the 25(OH) D levels with McNemar's test. Disease control was defined as DAS28VSG $\leq$ 3.2

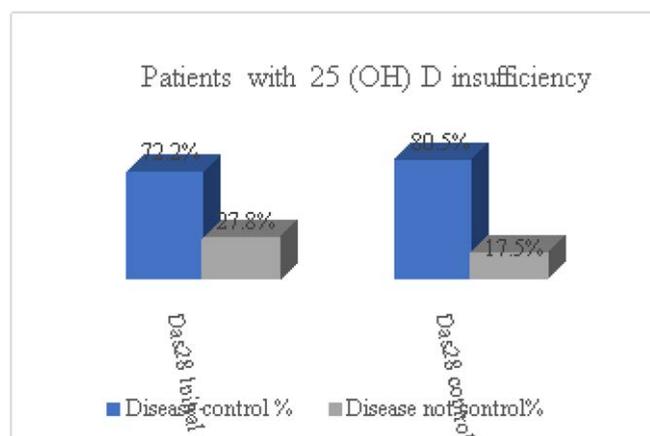
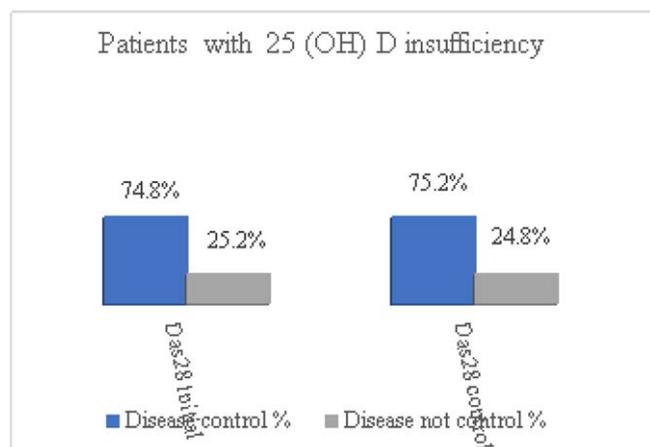
**Results:** A total of 880 patients were included, 90% were female and their mean age was 63 years and 24.3% had 25(OH) D insufficiency. The vast majority were seropositive and only 13% were on biologics (Table 1). A 25% of patients who 25(OH)D insufficiency had DAS28 3.2 and a year of follow-up decreased to 24% with medical intervention ( $p=0,1$ ), while patients without 25(OH)D insufficiency

at the beginning of follow-up, 27% had DAS28 3.2 and after one year follow-up decreased to 17% (p=0.001)

**Table 1**

	Mean (SD)		%
Age (years)	63.3 (10.6)		
Disease Duration	14.7 (10.8)		
Age at diagnosis	48.6(13.5)		
	N		%
Sex (Feminine)	793		90.1
Rheumatoid Factor (Positive)	699		85.6
N=817			
ACPA (Positive)	32.3		77.6
N=366			
Actual Steroid use	611		69.4
Actual Biologic Therapy	123		13.9
DMARD			
Methotrexate	570		64.8
Leflunomide	682		77.5
Sulfasalazine	218		24.8
Azathioprine	5		0.6
Antimalarials	147		16.7

**Conclusion:** In Colombian patients with rheumatoid arthritis low 25(OH) D status has an inverse correlation with disease control. Even in an equatorial country, up to 24% of RA patients had low vitamin levels. A strategy of active detection of 25(OH) D insufficiency could have an impact on disease activity and health status



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**AB0246 FACTORS ASSOCIATED WITH THE TIME OF PRESENTATION OF CARDIOVASCULAR EVENTS IN A COHORT OF COLOMBIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

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**Background:** Systemic lupus erythematosus is a systemic disease characterized by a compromise of vital organs. The autoimmune activity has been linked to accelerated endothelial damage and increased cardiovascular risk and its outcomes such as heart attack, stroke, and peripheral arterial disease(1). Patients with Lupic nephritis have been characterized by requiring aggressive immunosuppressive therapies apart from prolonged and progressive use of corticosteroids, what you have shown can accelerate these outcomes(2). Other factors such as secondary arterial hypertension, dyslipidemia among others are factors to consider (3).

**Objectives:** To analyze clinical and immunological characteristics associated with time to severe renal involvement in patients with Systemic Lupus Erythematosus in a Colombian cohort followed for one year, between January 2015 and December 2018.

**Methods:** Retrospective follow-up study based on clinical records of patients with SLE diagnosis that fulfilled either 1987 American College of Rheumatology Classification Criteria for SLE or 2011 Systemic Lupus International Collaborating Clinics (SLICC) classification criteria for SLE. Patients with cardiovascular disease outcomes such as angina, acute myocardial infarction, stroke, transient cerebral ischemia and chronic arterial occlusive disease were included. Patients who did not have at least two follow-up measurements or had structural heart disease, valvulopathies, arrhythmias, myocarditis, pericarditis were excluded. The main outcome was defined as the time from diagnosis to cardiovascular diseases.

Clinical and immunological characteristics were analyzed. Descriptive statistical analyses of participant data during the first evaluation are reported as frequencies and percentages for categorical variables, and as medians and interquartile ranges for quantitative variables. Age and sex adjusted survival functions and Hazard Ratios (HR) with 95% confidence intervals and p-values were estimated using parametric Weibull models for interval-censored data. P values < 0.05 were considered statistically significant

**Results:** 547 patients were analyzed: 29 were left-censored as they presented renal involvement at entry, 22 were interval censored as outcome occurred between study visits, and 496 were right-censored as involvement was not registered during follow-up. 528 (96.5%) patients were female, median age at entry was 46 (IQR = 23) and median age to diagnosis was 29.4 (IQR = 20.9). Statistically significant age and sex adjusted variables were High Blood Pressure (HBP) HR = 2.0 (95%CI 1.1-3.6; p-value <0.018) and cumulative prednisolone dose (>10 gr vs <2 gr) HR = 2.4 (95%CI 1. 1-5.1; p-value = 0.023). Figure 1 shows the age and sex adjusted survival function for HBP

**Conclusion:** HBP and cumulative steroid doses accelerate the onset of cardiovascular diseases in patients with lupus more than two times. Maintaining blood pressure in goals and performing early clearance of glucocorticoids could improve outcomes in these patients who are already considered a high cardiovascular risk

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